Observation System
VSS7390/00T
Switcher

Installation
Instructions

Let's make things better.

PHILIPS

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SECTION 1
GENERAL

1   SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC
SHOCK. DO NOT OPEN

1.1   IMPORTANT SAFEGUARDS

1.   Read these instructions.

2.   Keep these instructions.

3.   Comply with all warnings.

4.   Follow all instructions.

5.   Do not use this equipment near water.

6.   Clean only with dry cloth.

7.   Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8.   Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.

9.   Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. Both the wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the equipment.

11. Only use attachments/accessories specified by the manufacturer.

12. Unplug this equipment during lightning storms or when unused for long periods of time.

13. Refer all servicing to qualified service personnel. Servicing is required when the equipment has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.

14. To reduce the risk of fire or electric shock, do not expose this equipment to rain or moisture.

15. The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the equipment.

16. The back of the monitor should only be removed by qualified maintenance and service personnel.

17. The lightning flash with arrowhead symbol, within a triangle, is intended to alert the user to the presence of uninstalled "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

18. Caution: to reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

19. The exclamation mark within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

VENTILATION

20. Keep ventilation openings free to avoid the monitor for overheating.

21. Do not place the monitor in the immediate vicinity of a heating source.

22. Do not install this equipment in a confined space such as a bookcase or similar unit.

CLEANING

23. You can clean the monitor with a moist fluff-free cloth or shammy leather cloth.

DISPOSAL

24. This monitor contains batteries. Do not dispose of these batteries with other solid waste. The batteries type AA (standard penlights) are located in the battery compartment at the bottom of your monitor.

     CAUTION: Danger of explosion if batteries are incorrectly replaced. Replace only with the same or equivalent type.

Remark: Philips has a strong commitment towards the environment. This monitor has been designed to respect the environment as much as possible.

Note: Any change or modification not expressly approved by Philips of the equipment authorization could void the user's authority to operate the equipment.

For additional information or to speak to a representative, please contact the Philips Communication, Security & Imaging location nearest you or visit our web site at www.Philipscsi.com.

(See: Your Guide to Observation)

SECTION 2
INSTALLATION

2 HARDWARE INSTALLATION

This chapter describes the installation of the system hardware. For details of operation, see the supplied Operation Instructions.

Note: Ensure that you read all safety precautions.

2.1 SYSTEM CABLE

For the interconnection between the monitor and camera a 15m/45ft system cable is supplied with the camera. For an optimum picture and sound quality you should always use 4-wire dual twisted-pair cable when extending the connection. The maximum allowed cable length is 200m/600ft. Pay attention that the connectors are fixed to the cable corresponding to the figure below. (Figure 3.1) If the length of the system cable is over 200m/600ft (up to 300m/900ft), an interface box should be used to feed the accessory or camera (see optional accessories in the Operation Instructions).

Caution: The plugs used for the observation system have the same dimensions as standard telephone plugs. (RJ-11) Never connect telephone equipment or cable to the observation system.

2.2 SYSTEM CONNECTION

2.2.1 Camera inputs (1 to 4)

The cameras are connected to inputs 1 through to 4, depending on the number of cameras used.

2.2.2 Slave output

An output for a slave monitor (optional accessory) is available. This output can also be used to connect an optional Network Observation System.

2.2.3 Aux. output/input

You can configure an auxiliary output configuration via the menu option (see System settings). The auxiliary output provides loop-through from one of the 4 camera inputs or presentation mode where you can connect another video source to aux-in. It is possible to switch between this video source and one of the camera pictures.

Note: The supplied A/V cable can be used for Aux. output/input connection. However, if you are using two VCRs, you will need to order a second A/V cable (see your local supplier).

- Connect the Mini Din plug to the Aux. connector of the system monitor.
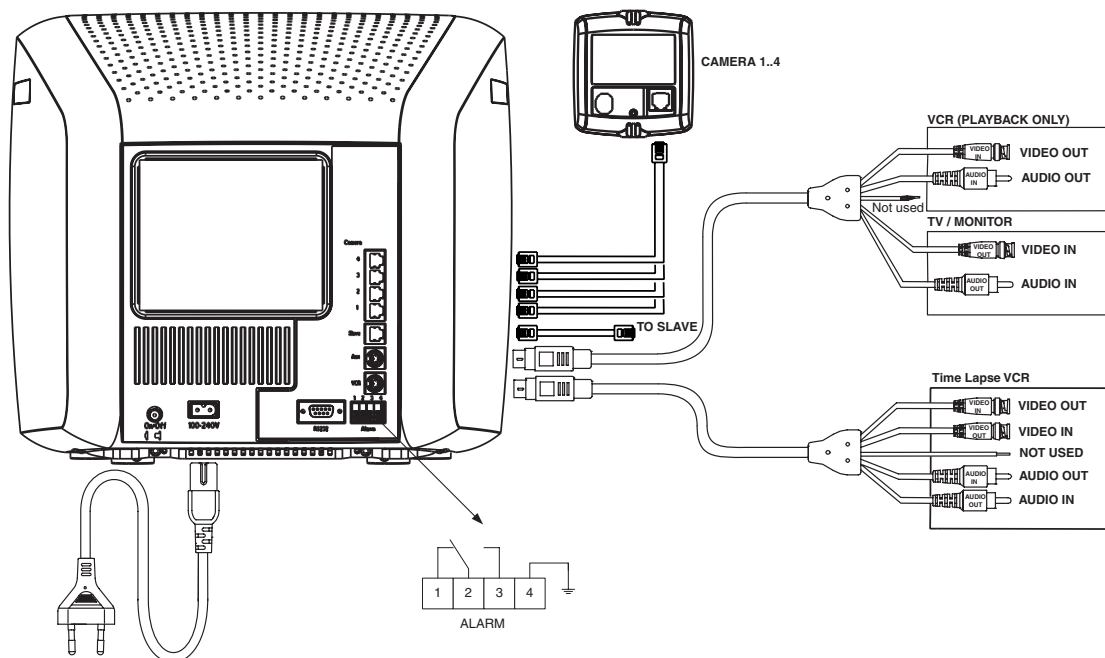
System Connection

- Connect the BNC connectors to the video in and video output of the VCR or CVBS monitor.

- Connect the RCA plugs to the Audio in and Audio out of your VCR or CVBS monitor.

2.2.4 VCR in/output

The VCR in/output allows you to connect a VCR to record camera images.

- Connect the Mini Din plug to the VCR connector of the system monitor.

- Connect the BNC connectors to the video in and video output of the VCR.

Attention: The 'Video In plug' of the A/V cable must be connected to the 'Video out' of the VCR. The 'Video Out plug' of the A/V cable must be connected to the 'Video In' of the VCR.

- Connect the RCA connectors to the Audio in and Audio out of your VCR.

Attention: The 'Audio In plug' of the A/V cable must be connected to the 'Audio out' of the VCR. The 'Audio Out plug' of the A/V cable must be connected to the 'Audio In' of the VCR.

2.2.5 Alarm output contact (N.O./N.C.)

In case of an alarm a potential free relay contact (Normally Open/Normally Closed; 24V/2A max.) can activate a VCR, siren or telephone selector. If the 'alarm output' is connected to the 'alarm input' of a video recorder, the recording speed will switch from time-lapse to normal speed in case of an alarm. This will result in the recording of more pictures per second. If the alarm is acknowledged by the user or automatically after 30 seconds the VCR switches back to time-lapse mode.

2.2.6 RS232

For service purposes to connect a PC/Laptop to install/configure the observation System.

2.2.7 Mains Power Connector

Ensure that you observe all safety precautions when connecting the mains power cable and switching on the power.

Attention: When the configuration is changed, the system must be scanned again. Therefore __always__ switch off the system before a camera or accessory is added or removed. After power up the system monitor will recognize the item that was added or removed.

2.3   WIZARD INSTALLATION

When the system is powered up the FIRST time, the WIZARD setup option is displayed. The Installation Wizard will guide you through the most important settings of the system. Follow the screen options and select using the ROTARY wheel.

Note: When an additional camera or accessory is connected to the system, the WIZARD function is automatically enabled and you are guided through the appropriate menus at power up.

During startup the following screen is displayed:

```
              PHILIPS
      OBSERVATION SYSTEM
            VERSION
              x.x
```

The following menu is displayed after a number of seconds:

```
LANGUAGE
ENGLISH
FRANCAIS
DEUTCH
ITALIANO
PORTUGUES
ESPAGNOL
NEDERLANDS
```

Turn the ROTARY wheel until the required language is highlighted.

- Select your preferred language by pressing the ROTARY wheel.

The following menu is displayed:

```
CONFIGURATION
START INSTALLATION WIZARD?

YES                        NO
```

- Select YES to start the wizard setup. The wizard setup enables you to configure the system to your own settings and guides you through the process automatically.

- Select NO to enable the system to automatically configure itself to the factory default settings.

Note: For detailed information on the on screen menus refer to the System Settings Part.

When completed the following screen will appear:

CONFIGURATION
CONFIGURATION WIZARD
COMPLETED

2.4   SYSTEM SETTINGS

The system settings that can be configured to your own requirements. The system is setup via on-screen menus. To access the menu options:

- Press the MENU button. Toggle to switch on/off.

The ROTARY wheel controls the menu navigation as described in the Operation Instructions.

At the end of this chapter you can find the complete menu structure in a diagram.

2.4.1 Main Menu

After pressing the menu button the following menu will be displayed:

MAIN MENU	
SWITCH TO PLAYBACK VIEW	>
HISTORY	>
VIEW SETTINGS	>
TIME/DATE	>
SYSTEM SETTINGS	>

Note: SWITCH TO PLAYBACK VIEW, the HISTORY, VIEW SETTINGS and TIME/DATE functions are described more detailed in the Operation Instructions.

Remark: After entering the system settings, alarms are disabled.

2.4.2 System Settings Menu

With the System settings menu you can configure the system according to your own requirements. Configurations that can be changed are:

Select system settings from the main menu and the following menu will appear:

MAIN MENU
SYSTEM SETTINGS
SEQUENCE
ALARMS
AUX-OUTPUT
VCR
INSTALLATION
SERVICE

2.4.3 Sequence

You can change the sequence dwell time from 02 sec to 30 secs. Sequence/dwell time is the length of time an image is displayed before the next image in the sequence is shown.

MAIN MENU		
SYSTEM SETTINGS		
SEQUENCE		
DWELL TIME	05	SEC

2.4.4 Alarms

The Alarm Profiles can be accessed from the Alarm menu.

MAIN MENU		
SYSTEM SETTINGS		
ALARMS		
ALARM DURATION	05	SEC
ALARM PROFILE DAY		
ALARM PROFILE NIGHT		
EVENT REPLAY		

ALARM DURATION	This defines the period of time (5 sec. to 15 min.) that the alarm beeper and the alarm relay are activated, unless the operator acknowledges the alarm.

ALARM PROFILE DAY

MAIN MENU			
SYSTEM SETTINGS			
ALARMS			
ALARM PROFILE DAY			
EXIT DELAY 0 SEC			
TITLE	MOTION	ALARM-BOX	DOORBELL
1	OFF	OFF	OFF
2	OFF	OFF	ON
3	OFF	OFF	OFF
4	OFF	OFF	OFF

EXIT DELAY	Alarm Exit Delay (0 sec. to 4 min.) is the amount of time before alarm profile night will be activated. (i.e. time for a person to exit a room before the night alarm profile is active after switching over from day to night).

MOTION	The camera detects motion within the defined motion area.
ALARM BOX	An alarm box is an optional accessory that enables you to activate an alarm input (e.g. PIR detector).
DOOR BELL	A door bell (Intercom Box) is an optional accessory that enables you react to persons who enter by pressing the respective door bell. Pressing the doorbell will sound the system buzzer and register an event.

ALARM PROFILE NIGHT

```
MAIN MENU
SYSTEM SETTINGS
ALARMS

ALARM PROFILE NIGHT
ENTRY DELAY            0  SEC
DISPLAY                ON/OFF
TITLE      MOTION    ALARM-BOX    DOORBELL
1          OFF       OFF          OFF
2          OFF       OFF          ON
3          OFF       OFF          OFF
4          OFF       OFF          OFF
```

ENTRY DELAY	An alarm generated in night mode will be processed by the system after the entry delay time is expired (programmable between 0 sec. and 4 min.). If the system switches over from night to day during this entry delay time a generated alarm will not be processed. Exceptions are special alarms, which always will be processed.
DISPLAY	In night mode, the display option automatically switches the monitor screen display off when the OFF option is selected.

The other options are the same as for the ALARM PROFILE DAY.

2.4.5 Aux output

From the system settings menu you can configure the system aux-output.

```
MAIN MENU
SYSTEM SETTINGS

AUX-OUTPUT
PRESENTATION MODE          ON
AUX-OUT                    1
PRESENTATION ON SLAVE      OFF
SEQUENCE                   ON
SEQUENCE WITH              2
DWELL TIME                 03 SEC
AUDIO SOURCE               AUX-IN
```

PRESENTATION MODE	An advanced feature of this system is the 'presentation mode'.
	OFF - The auxiliary output provides loop-through from one of the 8 camera inputs, depending of the AUX-OUT setting.
	ON - The auxiliary input allows you to view images from an additional VCR. These images can consist of a presentation movie sequenced with live camera images.

Remark: When a Network Observation System is connected to the slave output of the system monitor it is not possible to display the presentation mode on the slave monitor.

AUX-OUT	When presentation mode is OFF, one of the eight camera outputs can be set on the AUX-output.
	When presentation mode is ON, the AUX-OUT option is disabled.
PRESENTATION ON SLAVE	If presentation on slave is ON it is possible to display presentation mode on the slave monitor as well as on the AUX-output. This option is forced to OFF by the system when a Network Observation System is connected to the slave output of the system monitor.

SEQUENCE	The presentation is sequenced with a live camera image when selected to ON.
SEQUENCE WITH 2	Presentation is sequenced with the selected live camera image (in this case with camera number 2)
DWELL TIME	Change the image sequence dwell time (programmable between 02 and 30 secs)
AUDIO SOURCE	Selected Audio source is automatically displayed.

2.4.6 VCR

You can setup the VCR from the system menu:

```
MAIN MENU
SYSTEM SETTINGS

VCR
PLAYBACK DETECTION ON
```

PLAYBACK DETECTION	By connecting the input and output from the same VCR you can have an automatic playback detection option.
	ON - This allows you to switch on the VCR playback and the system will automatically detect the VCR has been switched on for playback.
	OFF - The playback detection is disabled. You can select the VCR playback by accessing the main menu and selecting "SWITCH TO PLAYBACK VIEW"

2.4.7 Installation

The Installation group contains all installation-related items, such as language, system beep and camera setting.

```
MAIN MENU
SYSTEM SETTINGS

INSTALLATION
LANGUAGE                ENGLISH
BEEP VOLUME             OFF
EXTERNAL CONTROL
SETUP CAMERA           1
SETUP CAMERA           2
SETUP CAMERA           3
SETUP CAMERA           4
```

LANGUAGE	You can choose from English, French, German, Spanish, Dutch, Italian and Portuguese. The menus are then displayed in the selected language.
BEEP VOLUME	Allows you to select the system audio beep high, medium, low or off.
EXTERNAL CONTROL	Allows you to control the system via slave or IR Remote Control.

EXTERNAL CONTROL

```
MAIN MENU
SYSTEM SETTINGS
INSTALLATION

EXTERNAL CONTROL
REMOTE CONTROL          OFF
SYSTEM ADDRESS          1
CONTROL AT SLAVE        OFF
```

REMOTE CONTROL	Can be selected ON or OFF to allow control of the system from the IR Remote Control accessory.
SYSTEM ADDRESS	Can be selected from an address of 1 to 8 to avoid multiple system switching with one IR Remote Control.
CONTROL AT SLAVE	Can be selected ON or OFF to allow control of the system from the Slave Monitor accessory.

SETUP CAMERA

For every connected camera a camera configuration menu can be selected (activated).

```
MAIN MENU
SYSTEM SETTINGS
INSTALLATION

SETUP CAMERA I
TITLE                             I
BACKLIGHT COMPENSATION     OFF
WHITE BALANCE                AUTO
FIELD OF VIEW                   I
MICROPHONE                     ON
MOTION AREA
MOTION SENSITIVITY
DISPLAY MOTION                OFF
```

TITLE	Allows you to enter a camera title (max. 8 characters).

BACKLIGHT COMPENSATION (BLC)

Backlight compensation:

BLC OFF - The camera Automatic Light Control (ALC) responds to the average content of the entire video picture.

BLC ON - The camera ALC responds pre-dominantly to the center of the picture, shown by the diagram. If an object of interest falls inside the BLC area, its visibility will remain relatively constant even if the background illumination varies.

WHITE BALANCE	White balance is where the camera automatically matches the video color to the white (reference) area of the image. The different options are:

FIXED - keep the white balance settings which are currently used.

AUTO - White balance is automatically set.

RECALCULATE - Set the white balance to automatic for 5 seconds and then back to fixed.

Note: Recalculate is only available when current setting is FIXED.

FIELD OF VIEW	(Range 1: 1.33: 1.66 : 2: default is 1). Adjust the field of view using digital zoom in the camera to ensure complete coverage of the object within the viewing angle of the camera lens.
MICROPHONE	Select the microphone ON/OFF.
MOTION AREA	Allows you to define the area size for motion detection.
MOTION SENSITIVITY	Allows you to define the sensitivity of motion detection. This enables you to detect objects like a person running across the motion area but will not raise an alarm if there is a small movement (detect humans but no birds).
DISPLAY MOTION	This allows you to view where the motion has been detected by displaying a series of movement indicators on the monitor screen.
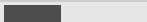
2.4.8 Motion Sensitivity

```
MAIN MENU
SYSTEM SETTINGS
INSTALLATION
SETUP CAMERA I

MOTION SENSITIVITY I
LEVEL
MOTION INDICATOR
RESET INDICATOR
```

LEVEL	Sets the level (the amount) of motion detection.
MOTION INDICATOR	Displays the set level of motion detection.
RESET INDICATOR	Resets the motion detection indicator to the current setting.

Set motion alarm as follows:

1. Reset indicator.
2. Set level on minimum.

3. Walkthrough motion area (motion indicator indicates level of motion).
4. Set level just below the level of motion indication.

2.4.9 Service

The SERVICE menu contains all items relevant for servicing your observation system: resetting the system to factory defaults and the internal diagnose.

MAIN MENU	
SYSTEM SETTINGS	
SERVICE	
SYSTEM DIAGNOSE	
FACTORY DEFAULTS	

SYSTEM DIAGNOSE	With this option you can obtain an overview of the internal diagnose settings. (Consult the service manual for more information).
FACTORY DEFAULTS	With this option you can set the complete system to the factory defaults. All current settings will be lost, (this will take a few seconds). Language selector and Wizard setup will be activated again.

MAIN MENU	
SYSTEM SETTINGS	
SERVICE	
FACTORY DEFAULTS	
CURRENT SETTINGS	
WILL BE LOST	
CONTINUE?	
NO	YES

2.4.10 Disable System Setting Option

You can disable the system setting option, ensuring operators do not make inadvertent system changes.
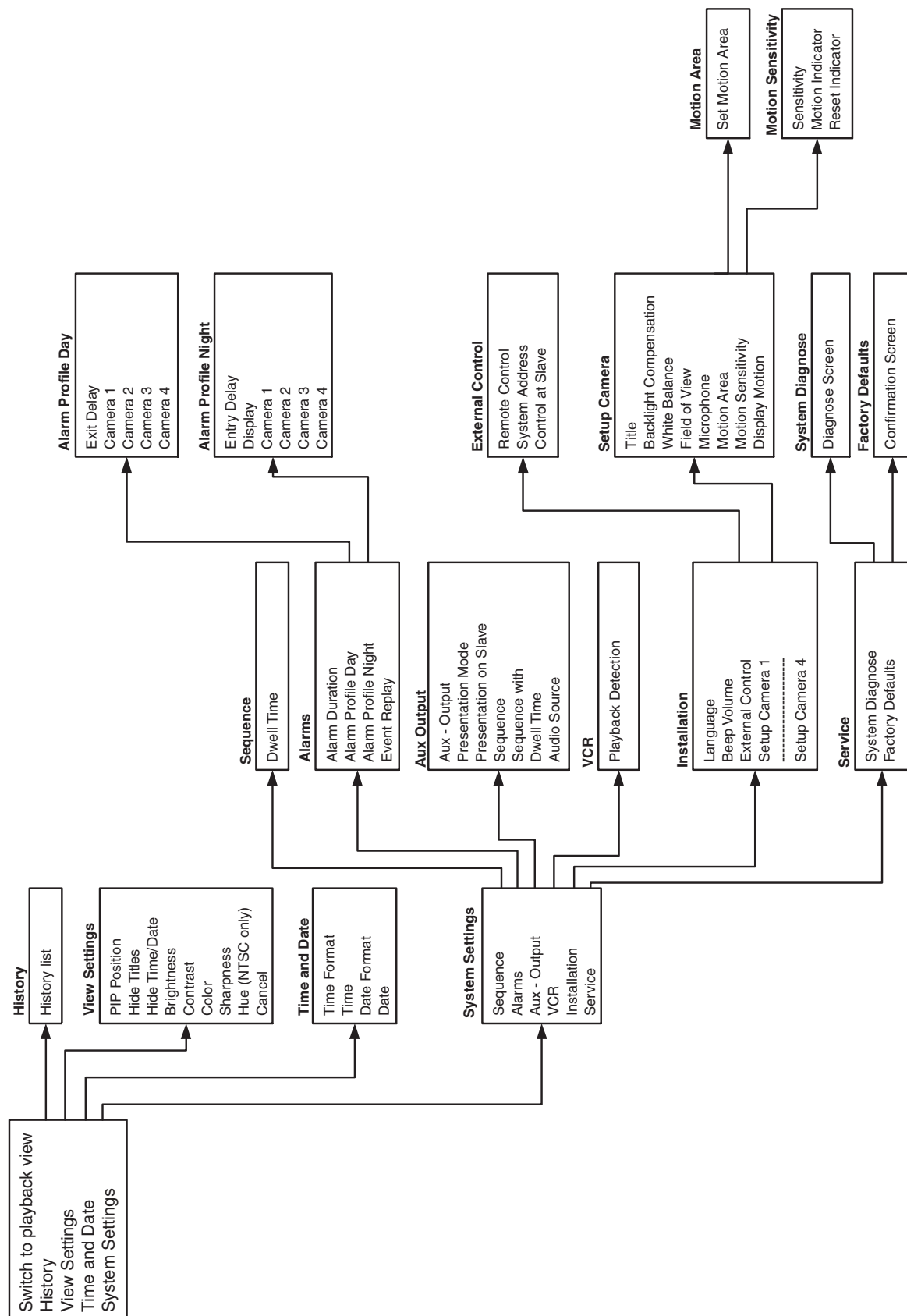
To menu lock the system settings option:

- Switch the complete system off.

- Switch the system on while keeping the PIP and PIP Swap buttons pressed at the same time. Continue to keep the buttons pressed until the start-up screen appears.

System settings are removed from the main menu.

Note: Follow the same procedure to unlock the system settings menu.

Menu Structure

Main Menu
- Switch to playback view
- History
- View Settings
- Time and Date
- System Settings

History
- History list

View Settings
- PIP Position
- Hide Titles
- Hide Time/Date
- Brightness
- Contrast
- Color
- Sharpness
- Hue (NTSC only)
- Cancel

Time and Date
- Time Format
- Time
- Date Format
- Date

System Settings
- Sequence
- Alarms
- Aux - Output
- VCR
- Installation
- Service

Sequence
- Dwell Time

Alarms
- Alarm Duration
- Alarm Profile Day
- Alarm Profile Night
- Event Replay

Aux Output
- Aux - Output
- Presentation Mode
- Presentation on Slave
- Sequence
- Sequence with
- Dwell Time
- Audio Source

VCR
- Playback Detection

Installation
- Language
- Beep Volume
- External Control
- Setup Camera 1
- - - - - - - - - -
- Setup Camera 4

Service
- System Diagnose
- Factory Defaults

Alarm Profile Day
- Exit Delay
- Camera 1
- Camera 2
- Camera 3
- Camera 4

Alarm Profile Night
- Entry Delay
- Display
- Camera 1
- Camera 2
- Camera 3
- Camera 4

External Control
- Remote Control
- System Address
- Control at Slave

Setup Camera
- Title
- Backlight Compensation
- White Balance
- Field of View
- Microphone
- Motion Area
- Motion Sensitivity
- Display Motion

System Diagnose
- Diagnose Screen

Factory Defaults
- Confirmation Screen

Motion Area
- Set Motion Area

Motion Sensitivity
- Sensitivity
- Motion Indicator
- Reset Indicator

SECTION 3
TECHNICAL SPECIFICATIONS

APPROVALS

Safety

Europe	EN60065
USA	UL6500 UL & cUL listed
Australia	C-Tick

Electro Magnetic Compatibility (EMC)

Europe	EN55022 Class B, EN50130-4
USA	FCC part 15, class B
Australia	AS/NZS 3548

ELECTRICAL

Picture tube	14" (viewable picture area 13"), 90° deflection, 0.65 mm pitch TV grade
Resolution	PAL: 320 TVL; NTSC: 290 TVL
TV standard	PAL: 625 lines, 50 Hz, 2:1; NTSC: 525 lines, 60 Hz, 2:1
Mains supply voltage	Universal input, 100 - 240 VAC +/-10%, 50/60 Hz
Power consumption	<75 W max. (without cameras)
Camera power supply	24 to 32 VDC, short-circuit protected
System synchronization	Monitor locks to the mains
	Cameras lock to H and V of the monitor
Camera inputs	4 (system interface)
Slave monitor output	1 (system interface)
Microphone	Sensitivity 46dB SPL @ 1kHz
Audio speaker	500 mW rated, 1000 mW max.
Frequency range	300 - 3kHz

Alarm output screwblock

4-pole screw-block	N.O./N.C. contact + system ground
Contact rating	24VAC or DC, 2 A (resistive load)

AUX/VCR

Video input	BNC (1 Vpp, input impedance 75 Ohm)
Audio input	RCA (0.5 Vpp, input impedance 10 kOhm)
Video output	BNC (1 Vpp, output impedance 75 Ohm)
Audio output	RCA (0.5 Vpp, output impedance 1 kOhm)

System cable

	4-wire dual twisted pair cable
	1 twist/inch, loop resistances max 16 ohm at 100 meter

MECHANICAL

Weight	approx. 9.5 kg
Dimensions (hxwxd)	325 x 364 x 368 mm
Ambient temperature	
Operating	+5°C…+45°C
Storage	-25°C…+70°C
Ambient humidity	5% to 95% RH

Specifications may change without notice.

If you have any problems, contact your dealer.

3122 165 22151